Please note the following:

1. Huang qualifies as prior art only under *35 U.S.C. 102(e)*; and

2. The instant application was filed after November 29, 1999, the effective date of amended *35 U.S.C. 103(c)*; and

3. The instant application and Huang were, at the time the instant invention was made, subject to an obligation of assignment to the same company, as evident from the attached Statement of Common Ownership.

35 U.S.C. 103(c) then applies to disqualify Huang as prior art usable in an obviousness rejection under *35 U.S.C. 103(a)*. It should be noted that the attached Statement alone is sufficient evidence to establish common ownership at the time the instant invention was made. *See* MPEP 706.02(l)(2).

Furthermore, Applicants have carefully reviewed the other references cited by the Examiner and found claims 1-4 are patentable over the cited references.

Claim 1 is directed to a method for forming a semiconductor device having a bump electrode. The method utilizes a beginning substrate having an aluminum contact pad thereon wherein at least a portion of the aluminum contact pad is exposed through a dielectric layer on the substrate. Firstly, an aluminum layer is formed on the dielectric layer and the exposed portion of the aluminum contact pad. Then, a nickel-vanadium layer is formed on the aluminum layer and a titanium layer is formed on the nickel-vanadium layer. After that, a gold bump is selectively formed on the titanium layer at a location corresponding to the aluminum contact pad. Finally, the aluminum layer, the nickel-vanadium layer and the titanium layer are etched using the gold bump as a mask. *See* claim 1.

Claim 1 specifically requires that a titanium layer be formed on the nickel-vanadium layer, and a gold bump be selectively formed on the titanium layer at a location corresponding to the aluminum contact pad. The Examiner alleges that this feature is taught by Li et al. Applicants respectfully disagree.

Li et al. teach at best forming a three layers metallurgy A--B/C where A (non-refractory metal) is formed on the pad side and B/C (refractory metal such as such as titanium (Ti) or vanadium (V)) is formed on the bump side. However, after reviewing col. 3, lines 15-30 as well as the entire disclosure of Li, Applicants fail to locate any teaching of or suggestion for a step of forming a titanium layer on a nickel-vanadium layer in presently claimed manner. Moreover, Li et al. do not teach or suggest a step of selectively forming a gold bump on the titanium layer. On the contrary, Li et al. teach forming a bump on refractory hydride layer, instead of a refractory metal, such as titanium (Ti), as presently claimed, since all UBMs taught by Li must undergo thermal processing in a rapid thermal processor using ambient hydrogen (*see* column 3, lines 1-9; lines 13-15; and lines 34-37). The Examiner's reliance on Li for the above highlighted claim feature is clearly inappropriate.

The Examiner's *35 U.S.C. 103(a)* rejection of claims 1-4 is therefore inappropriate and should be withdrawn.

Based on the above remarks, the present invention as defined in claims 1-4 is believed patentably distinguishable over the cited references. It is therefore respectfully requested that claims 1-4 be allowed so that the entire case may be passed to early issuance.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

Respectfully submitted,

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